



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

MACHINE NAME : AUTOMATIC ROTARY VIAL
WASHING MACHINE

CLIENT NAME & ADDRESS :

MODEL NO. :

DOCUMENT NAME : FACTORY ACCEPTANCE TEST

DOCUMENT NO. :

MACHINE SR. NO. :

REVISION NO. : 00

WORK ORDER NO. :

PO. NO.& DATE :



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

TABLE OF CONTENTS

1.0	SYSTEM DESCRIPTION	3
2.0	SCHEMATIC DIAGRAM	4
3.0	SYSTEM CHECKS	5
3.1	PHYSICAL CHECKS	5
3.2	MECHANICAL DRAWING VERIFICATION.....	6
3.3	ELECTRICAL DRAWING.....	7
3.4	P & ID DRAWING	7
3.5	COMPONENT VERIFICATION	8
4.0	MATERIAL OF CONSTRUCTION CERTIFICATE VERIFICATION.....	13
5.0	COMPONENT CERTIFICATION.....	14
6.0	FUNCTION VERIFICATION.....	16
7.0	SAFETY FEATURES, ALARMS & INTERLOCKS TEST.....	17
8.0	LOGICAL SECURITY VERIFICATION	19
8.1	ACCESS LEVEL TEST.....	19
9.0	TEST RUN	20
10.0	DEVIATION	20
11.0	APPROVAL	21



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

1.0 SYSTEM DESCRIPTION:

Automatic rotary vial washing machine is designed for washing 2 ml. to 100 ml vials with change parts. The Vials are washed from inside as well as outside eliminating the foreign particles present in the vial. This Machine is equipped with total 6 washing stations.

- 1st WFI-2 (Drain from WFI-1- INT + EXT) With Extra Tank.
- 2nd FILTERED COMPRESSED AIR (INT)
- 3rd WFI-1 (Drain from fresh WFI) With Extra Tank.
- 4th FILTERED COMPRESSED AIR. (INT).
- 5th Fresh WFI (INT + EXT) From Loop System.
- 6th Filtered compressed Air – (INT + EXT)

Note: Water collected station 1 will be drained. Re-circulation water can be selected as per customer requirement.

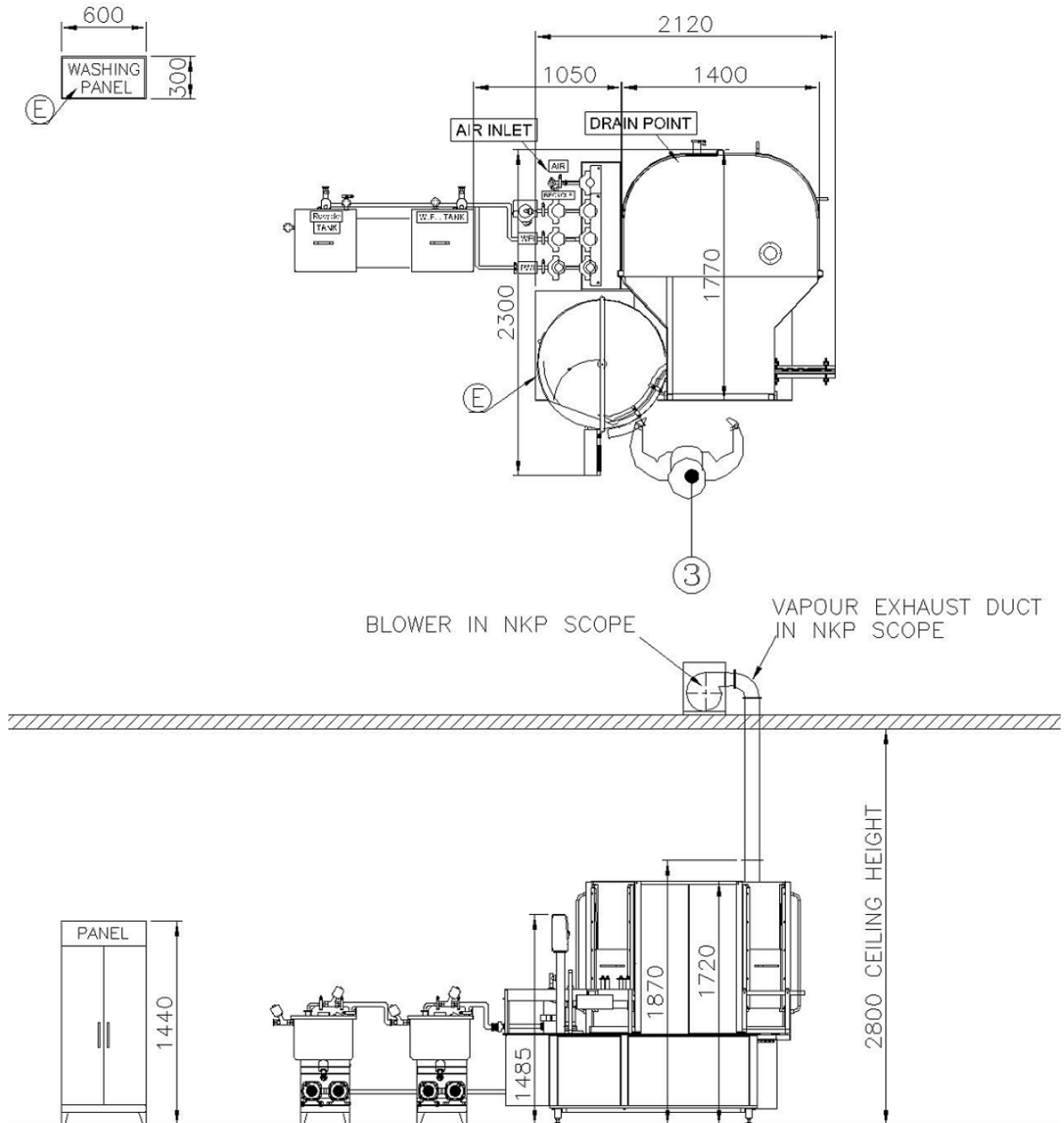
Process can be separated in 3 different phases:

1. In feeding of vials.
2. Washing of vials.
3. Discharging of vials.



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

2.0 SCHEMATIC DIAGRAM:



THERE MAY BE $\pm 20\text{MM}$ VARIATION IN MENTION DIMENSIONS



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

3.0 SYSTEM CHECKS:

3.1 PHYSICAL CHECKS

METHOD	DESCRIPTION	ACCEPTANCE CRITERIA	OBSERVATION	SIGN / DATE
Outer Surface finish Verification	Check Outer surface of machine	-Matt finish -Curved corner -No dent -No visible spot of welding		
Document Verification	Verification of Wiring diagram	-As per wiring diagram attached in FAT		
Document Verification	Verification of Input / Output connection.	-As per Input / Output List mention in DQ.		
Document Verification	Verification of MOC certificate	-MOC of all contact and component mentioned in BOM or test certificate from manufacturer /accredited test lab.		
Panel Positioning verification	Panel positioning	Control panel positioning is assessable and at standard visible height.		
Machine Dimension	Verification with machine	As per attached Layout drawing in FAT.		



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

3.2 MECHANICAL DRAWING VERIFICATION:

S.No.	DRAWING NAME	DRAWING NO.	OBSERVATION	SIGN / DATE
1.	MACHINE LAYOUT	01		
2.	MACHINE ASSEMBLY	02		
3.	MACHINE ELEMENTS	03		
4.	TRANSMISSION	04		
5.	TRAY ASSEMBLY	05		
6.	INFEED STAR WHEEL	06		
7.	OUTFEED STAR WHEEL	07		
8.	TURN TABLE ASSEMBLY	08		
9.	OSCILLATING RING ASSEMBLY	09		
10.	JACKING DRUM ASSEMBLY	10		
11.	TURRET ASSEMBLY	11		
12.	CABINET ASSEMBLY	12		
13.	SWITCH BOX ASSEMBLY	13		
14.	NOZZLE SPRAY ASSY RECYCLE WASH	14		
15.	FILTER ASSEMBLY	15		
16.	STAR WHEEL ASSEMBLY	16		
17.	EXTERNAL WASH WATER	17		
18.	EXTERNAL WASH AIR	18		
19.	SPART NOZZLE ASSY	19		



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

3.3 ELECTRICAL DRAWING:

S.No.	DRAWING NAME	DRAWING No.	OBSERVATION	SIGN / DATE
1.	POWER DISTRIBUTION CONNECTION DIAGRAM-1	001		
2.	POWER DISTRIBUTION CONNECTION DIAGRAM-2	002		
3.	RELAY CARD CONNECTION DIAGRAM	003		
4.	PLC INPUT CONNECTION DIAGRAM	004		
5.	PLC OUTOUT & MODULE CONNECTION DIAGRAM	005		
6.	MODULE INPUT / OUTPUT CONNECTION DIAGRAM	006		
7.	AC DRIVE CONNECTION DIAGRAM	007		
8.	TERMINAL BLOCK CONNECTION DIAGRAM	008		
9.	JUNCTION BOX CONNECTION DIAGRAM	009		

3.4 P & IDRAWING:

S.No.	DRAWING NAME	DRAWING No.	OBSERVATION	SIGN/DATE
1.	P & I DIAGRAM	001		



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

3.5 COMPONENT VERIFICATION:

S. No.	ITEM	MAKE	MODEL	SPECIFICATION	SERIAL NO.	MEETS YES/NO	SIGN
1.	MOTOR (MAIN)	BONFIGLIOLI	BN80A2	0.75KW,2810RPM			
2.	GEAR BOX (MAIN)	BONFIGLIOLI	W63U 7 P90B5B3	RATIO-7:1			
3.	GEAR BOX (TURRET)	ROTO-MOTO	RM-9G	NA			
4.	GEAR BOX (STAR WHEEL)	BONFIGLIOLI	W63UF1 10 P80B5B3	RATIO-10:1			
5.	GEAR BOX (IDLER)	ROTO-MOTO	RM-8G	NA			
6.	MOTOR (INFEED TURN TABLE)	BONFIGLIOLI	BN71B4	0.37KW,1370RPM			
7.	GEAR BOX (INFEED TURN TABLE)	BONFIGLIOLI	W63UFC1 100 P71B5B3	RATIO-100:1			
8.	MOTOR (TURRET HEIGHT UP/DOWN)	BONFIGLIOLI	BN71B4	0.37KW,1370RPM			
9.	GEAR BOX (TURRET HEIGHT UP/DOWN)	BONFIGLIOLI	VF44 F1 35 P71B5B3	RATIO-35:1			
10.	ENCODER (TURRET HEIGHT UP/DOWN)	POSITAL	UCD-IPH00-05000-L100-2RW	4.75-30VDC.			
11.	PUMP (WFI-1)	GRUNDFOS	CM3-5 A-R-G-V-AQQV F-A-A-N	0.65KW,0.87HP			
12.	PUMP (WFI-2)	GRUNDFOS	CM3-5 A-R-G-V-AQQV F-A-A-N	0.65KW,0.87HP			
13.	AC DRIVE (MAIN)	ALLEN BRADLEY	22F-D4P2N103	2HP, 3PH TO 3PH,			
14.	AC DRIVE (INFEED TURN TABLE)	ALLEN BRADLEY	22F-D1P5N103	0.5HP, 3PH TO 3PH,			
15.	AC DRIVE (TURRET HEIGHT UP/DOWN)	ALLEN BRADLEY	22F-D1P5N103	0.5HP, 3PH TO 3PH,			
16.	MODBUS MODULE WITH 485	ALLEN BRADLEY	1763-NC01	24VDC			
17.	PLC	ALLEN BRADLEY	1766-L32BXB	24VDC			
18.	ANALOG INPUT MODULE	ALLEN BRADLEY	1762-IF4	24VDC			
19.	THERMOCOUPLE / mv INPUT MODULE	ALLEN BRADLEY	1762-IT4	24VDC			
20.	SINK/SOURCE INPUT MODULE	ALLEN BRADLEY	1762-IQ8	24VDC			
21.	SOURCE OUTPUT MODULE	ALLEN BRADLEY	1762-OB16	24VDC			
22.	HMI	ALLEN	2711P-T6C20D8	24VDC			



PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

S. No.	ITEM	MAKE	MODEL	SPECIFICATION	SERIAL NO.	MEETS YES/NO	SIGN
		BRADLEY					
23.	MCB (MAIN)	HAGER	NCN204N	C4			
24.	MCB (MAIN & IN FEED T.T DRIVE)	HAGER	NCN310N	C10			
25.	MCB (SMPS)	HAGER	NCN206N	C6			
26.	MCB (24VDC)	HAGER	NCN204N	C4			
27.	CONTACTOR (MAIN)	SCHNEIDER	LC1D25	NA			
28.	CONTACTOR (BLOWER)	SCHNEIDER	LC1D09	NA			
29.	CONTACTOR (WFI-1)	SCHNEIDER	LC1D09	NA			
30.	CONTACTOR (WFI-2)	SCHNEIDER	LC1D09	NA			
31.	CONTACTOR(WFI HEATER-1)	SCHNEIDER	LC1D12	NA			
32.	CONTACTOR(WFI HEATER-2)	SCHNEIDER	LC1D12	NA			
33.	OVER LOAD RELAY (MAIN)	SCHNEIDER	LADN11	NA			
34.	OVER LOAD RELAY (BLOWER)	SCHNEIDER	LRD 07	1.6 TO 2.5 AMP.			
35.	OVER LOAD RELAY (WFI-1)	SCHNEIDER	LRD 07	1.6 TO 2.5 AMP.			
36.	OVER LOAD RELAY (WFI-2)	SCHNEIDER	LRD 07	1.6 TO 2.5 AMP.			
37.	OVER LOAD RELAY (WFI HEATER-1)	SCHNEIDER	LC1D12	12 TO 18 AMP			
38.	OVER LOAD RELAY (WFI HEATER-2)	SCHNEIDER	LC1D12	12 TO 18 AMP			
39.	SMPS	OMRON	S8VK-C12024	5 AMP. 24V DC.			
40.	RELAY CARD (8 CHANNEL)	PHOENIX	PC24D08-CNB	24V DC.			
41.	SSR	UNISON	807 PMDD 100 08 01	8AMP			
42.	SSR	ALLEN BRADLEY	700-HLT1Z	24VDC			
43.	SENSOR (TEMPERATURE)	EMTECH CONTROLS	RTD	NA			
44.	PRESSURE TRANSMITTER (AIR)	KELLER	PA-21Y/81554.33	0 TO 10BAR			
45.	PRESSURE TRANSMITTER (WFI)	KELLER	PA-21Y/81554.33	0 TO 6BAR			
46.	PRESSURE TRANSMITTER (WFI-	KELLER	PA-21Y/81554.33	0 TO 6BAR			



PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

S. No.	ITEM	MAKE	MODEL	SPECIFICATION	SERIAL NO.	MEETS YES/NO	SIGN
	1)						
47.	PRESSURE TRANSMITTER (WFI-2)	KELLER	PA-21Y/81554.33	0 TO 6BAR			
48.	SENSOR (WATER LEVEL HIGH)	MTS ENGINEERING	SMT-16S	NA			
49.	SENSOR (WATER LEVEL LOW)	MTS ENGINEERING	SMT-16S	NA			
50.	ACTUATOR (MAIN)	SCHNEIDER	BLACK	NA			
51.	EMERGENCY STOP	SCHNEIDER	RED	230V AC.			
52.	PUSH BUTTON (STOP)	SCHNEIDER	RED	NA			
53.	PUSH BUTTON (START)	SCHNEIDER	GREEN	NA			
54.	PUSH BUTTON (INCHING)	SCHNEIDER	YELLOW	NA			
55.	INCHING BOX	TECNIC	P2PSML401	NA			
56.	PROXIMITY (IN FEED TUNNEL OVER LOAD)	SICK	IME12-04 BPSZW2S	NA			
57.	PROXIMITY (IN FEED STAR WHEEL CLUTCH)	SICK	IME12-04 BPSZW2S	NA			
58.	PROXIMITY (OUT FEED STAR WHEEL CLUTCH)	SICK	IME12-04 BPSZW2S	NA			
59.	PROXIMITY (MAIN MOTOR UP POSITION)	SICK	IME12-04 BPSZW2S	NA			
60.	PROXIMITY (JACKET AIR WASH)	SICK	IME12-04 BPSZW2S	NA			
61.	PROXIMITY (FOR S.V ON/OFF)	SICK	IME12-04 BPSZW2S	NA			
62.	PROXIMITY (TURRET HEIGHT UP)	SICK	IME12-04 BPSZW2S	NA			
63.	PROXIMITY (TURRET HEIGHT DOWN)	SICK	IME12-04 BPSZW2S	NA			
64.	SENSOR (IN FEED VIAL COUNTING)	PANASONIC	CX-481-P	NA			
65.	SENSOR (OUT FEED	PANASONIC	CX-481-P	NA			



PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

S. No.	ITEM	MAKE	MODEL	SPECIFICATION	SERIAL NO.	MEETS YES/NO	SIGN
	VIAL COUNTING)						
66.	SENSOR (LOW VIAL AT IN FEED T.T)	IFM	KI5002	NA			
67.	PROXIMITY FOR DOOR OPEN	ACCENT	17X17	NA			
68.	HEATER	BHA	NA	2000W,230VAC			
69.	PRESSURE GAUGE (WFI-1 RECYCLE-1)	WIKA	CL1.6	0 TO 10BAR			
70.	PRESSURE GAUGE (WFI-1 RECYCLE-2)	WIKA	CL1.6	0 TO 10BAR			
71.	PRESSURE GAUGE (WFI-2 RECYCLE-1)	WIKA	CL1.6	0 TO 10BAR			
72.	PRESSURE GAUGE (WFI-2 RECYCLE-2)	WIKA	CL1.6	0 TO 10BAR			
73.	PRESSURE GAUGE (WFI MAIN)	WIKA	CL1.6	0 TO 10BAR			
74.	PRESSURE GAUGE (AIR)	WIKA	CL1.6	0 TO 10BAR			
75.	VALVE (WFI-1 WATER LINE)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
76.	VALVE (WFI-2 WATER LINE)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
77.	VALVE (WFI WATER LINE)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
78.	VALVE (AIR LINE)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
79.	VALVE (JACKET AIR WASH)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
80.	VALVE (WFI-1 AUTO FILL)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
81.	VALVE (WFI-2 AUTO FILL)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
82.	VALVE (WFI-1 WATER DRAIN)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
83.	VALVE (WFI-2 WATER DRAIN)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
84.	VALVE (AIR MAIN LINE)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
85.	VALVE (WFI-1 WATER MAIN LINE)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
86.	VALVE (WFI-2 WATER MAIN LINE)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
87.	VALVE (WFI WATER	LEISTUNG	LE15007PC6ETA	PS 6BAR			



PHARMA DEVILS

QUALITY ASSURANCE DEPARTMENT

FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

S. No.	ITEM	MAKE	MODEL	SPECIFICATION	SERIAL NO.	MEETS YES/NO	SIGN
	MAIN LINE)						
88.	VALVE (WFI-1 SHUT OFF)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
89.	VALVE (WFI-2 SHUT OFF)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
90.	VALVE (WFI SHUT OFF)	LEISTUNG	LE15007PC6ETA	PS 6BAR			
91.	BLOWER	GLOBAL	GD71	0.37KW,415V,1410 RPM			



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

4.0 MATERIAL OF CONSTRUCTION CERTIFICATE VERIFICATION:

- This is to prove that the materials used for construction of components are as per the DQ Specification / Approved Drawing.
- The Vendor shall present certificates for the parts listed.
- The submitted certificates shall be checked for correct material usage against the details submitted in the DQ / Approved Drawing form by the vendor.

S.No.	DESCRIPTION	MOC	ACTUAL	VERIFIED BY
1.	T.T. CLADDING	SS 304		
2.	TOP PLATE CLADDING	SS304		
3.	DOOR SET	SS304		
4.	IN FEED & OUT FEED STAR WHEEL WITH BACK GUIDE SET	DELRIN		
5.	NOZZLES	SS 316L		
6.	WATER INLET PIPE	SS 316		
7.	WATER OUTLET PIPE	SS 316		
8.	WATER COLLECTION TRAY	SS 316 L		
9.	WATER TANK	SS 316L		
10.	FILTER HOUSING FOR WATER WITH CARTRIDGE (SARTURIES MAKE)	SS 316L WITH 5 MICRON & 10 MICRON CARTRIDGE		
11.	FILTER HOUSING FOR AIR WITH CARTRIDGE	SS 316L WITH 0.2 MICRON CARTRIDGE		



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

5.0 COMPONENT CERTIFICATION:

- This to verify the Test certificates of the designated components.
- The Vendor shall present Test certificates of the designated components (From the original manufacturer) for verification. Check whether the certificate corresponds to the installed component. Compare the make, Model No. and other specifications from the certificate with the specifications of the component and in the table below.

S.No.	NAME OF COMPONENT	CERTIFICATE AVAILABLE YES / NO
1.	MOTOR (MAIN)	
2.	GEAR BOX (MAIN)	
3.	GEAR BOX (TURRET)	
4.	GEAR BOX (STAR WHEEL)	
5.	GEAR BOX (IDLER)	
6.	MOTOR (INFEED TURN TABLE)	
7.	GEAR BOX (INFEED TURN TABLE)	
8.	MOTOR (TURRET HEIGHT (UP/DOWN)	
9.	GEAR BOX (TURRET HEIGHT UP/DOWN)	
10.	ENCODER (TURRET HEIGHT UP/DOWN)	
11.	PUMP (WFI-1)	
12.	PUMP (WFI-2)	
13.	AC DRIVE (MAIN)	
14.	AC DRIVE (INFEED TURN TABLE)	
15.	AC DRIVE (TURRET HEIGHT UP/DOWN)	
16.	MODBUS MODULE WITH 485	
17.	PLC	
18.	ANALOG INPUT MODULE	
19.	THERMOCOUPLE / mv INPUT MODULE	
20.	SINK/SOURCE INPUT MODULE	
21.	SOURCE OUTPUT MODULE	
22.	HMI	
23.	SENSOR (TEMPERATURE)	
24.	PRESSURE TRANSMITTER (AIR)	
25.	PRESSURE TRANSMITTER (WFI)	
26.	PRESSURE TRANSMITTER (WFI-1)	
27.	PRESSURE TRANSMITTER (WFI-2)	
28.	SENSOR (WATER LEVEL HIGH)	
29.	SENSOR (WATER LEVEL LOW)	
30.	PROXIMITY (IN FEED TUNNEL OVER LOAD)	
31.	PROXIMITY (IN FEED STAR WHEEL CLUTCH)	



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

S.No.	NAME OF COMPONENT	CERTIFICATE AVAILABLE YES / NO
32.	PROXIMITY (OUT FEED STAR WHEEL CLUTCH)	
33.	PROXIMITY (MAIN MOTOR UP POSITION)	
34.	PROXIMITY (JACKET AIR WASH)	
35.	PROXIMITY (FOR S.V ON/OFF)	
36.	PROXIMITY (TURRET HEIGHT UP)	
37.	PROXIMITY (TURRET HEIGHT DOWN)	
38.	SENSOR (IN FEED VIAL COUNTING)	
39.	SENSOR (OUT FEED VIAL COUNTING)	
40.	SENSOR (LOW VIAL AT IN FEED T.T)	
41.	PROXIMITY FOR DOOR OPEN	
42.	PRESSURE GAUGE (WFI-1 RECYCLE-1)	
43.	PRESSURE GAUGE (WFI-1 RECYCLE-2)	
44.	PRESSURE GAUGE (WFI-2 RECYCLE-1)	
45.	PRESSURE GAUGE (WFI-2 RECYCLE-2)	
46.	PRESSURE GAUGE (WFI MAIN)	
47.	PRESSURE GAUGE (AIR)	
48.	VALVE (WFI-1 WATER LINE)	
49.	VALVE (WFI-2 WATER LINE)	
50.	VALVE (WFI WATER LINE)	
51.	VALVE (AIR LINE)	
52.	VALVE (JACKET AIR WASH)	
53.	VALVE (WFI-1 AUTO FILL)	
54.	VALVE (WFI-2 AUTO FILL)	
55.	VALVE (WFI-1 WATER DRAIN)	
56.	VALVE (WFI-2 WATER DRAIN)	
57.	VALVE (AIR MAIN LINE)	
58.	VALVE (WFI-1 WATER MAIN LINE)	
59.	VALVE (WFI-2 WATER MAIN LINE)	
60.	VALVE (WFI WATER MAIN LINE)	
61.	VALVE (WFI-1 SHUT OFF)	
62.	VALVE (WFI-2 SHUT OFF)	
63.	VALVE (WFI SHUT OFF)	
64.	BLOWER	

COMMENTS

CHECKED BY



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

6.0 FUNCTION VERIFICATION

AS PER ANNEXURE-I



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

7.0 SAFETY FEATURES, ALARMS & INTERLOCKS TEST:

Simulate Alarm/Interlock condition and observe results:

S.No.	FEATURE	SPECIFIED	REASON	RECTIFICATION	SIMULATION RESULT
1.	Infeed Clutch Overload	Machine Stop	Fallen Vial at Infeed Star wheel or Over diameter vial May Cause.	Release the Clutch manually from Infeed Clutch Assembly.	
2.	Outfeed Clutch Overload	Machine Stop	Fallen Vial at Outfeed Star wheel or Over diameter vial May Cause.	Release the Clutch manually from Outfeed Clutch Assembly.	
3.	Minimum Accumulation Machine Stop.	Machine Stop	Vial are not present on infeed T.T.	Load vial at infeed T.T.	
4.	Door open	Machine Stop	Any door is open	Close the Door	
5.	Air Pressure Low	Machine Stop	Current pressure is not match with set parameters	Please maintained the current pressure match with set parameters.	
6.	WFI-1 Water Pressure Low	Machine Stop	Current pressure is not match with set parameters	Please maintained the current pressure match with set parameters.	
7.	WFI Water Pressure Low	Machine Stop	Current pressure is not match with set parameters	Please maintained the current pressure match with set parameters.	
8.	WFI-2 Water Pressure Low	Machine Stop	Current pressure is not match with set parameters	Please maintained the current pressure match with set parameters.	
9.	Emergency Stop	Machine Stop	If press emergency button.	Emergency released	



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

S.No.	FEATURE	SPECIFIED	REASON	RECTIFICATION	SIMULATION RESULT
10.	WFI Water Temperature Low	Machine Stop	If Water Temperature is low level.	Maintain the Temperature Value as per requirement.	
11.	WFI-1 Heater Temperature Low	Machine Stop	If Water Temperature is low level.	Maintain the Temperature Value as per requirement.	
12.	WFI-2 Heater Temperature Low	Machine Stop	If Water Temperature is low level.	Maintain the Temperature Value as per requirement.	
13.	Main Motor Drive Faulted	Machine Stop	Motor overload or AC Drive Faulted	Rectify the problem & Go to drive status & clear the fault.	
14.	Infeed T.T. Drive Faulted	Machine Stop	Motor overload or AC Drive Faulted	Rectify the problem & Go to drive status & clear the fault.	
15.	Turret Height Up / Down Drive Faulted	Machine Stop	Motor overload or AC Drive Faulted	Rectify the problem & Go to drive status & clear the fault.	
16.	Blower Trip	Machine Stop	Blower overload or fault in Blower	Check Blower	
17.	WFI-2 Water Pump Overload	Machine Stop	Pump overload or fault in pump.	Check pump	
18.	WFI-1 Water Pump Overload	Machine Stop	Pump overload or fault in pump.	Check pump	
19.	WFI Water Pump Overload	Machine Stop	Pump overload or fault in pump.	Check pump	
20.	WFI-1 Heater Trip	Machine Stop	Heater overload or fault in Heater	Check Heater	
21.	WFI-2 Heater Trip	Machine Stop	Heater overload or fault in Heater	Check Heater	
22.	WFI-2 Water Tank Level Low	Machine Stop	WFI-2 Water Level Low in Tank	Fill the Tank	
23.	WFI-1 Water Tank Level Low	Machine Stop	WFI-1 Water Level Low in Tank	Fill the Tank	



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

S.No.	FEATURE	SPECIFIED	REASON	RECTIFICATION	SIMULATION RESULT
24.	Fresh WFI Water Tank Level Low	Machine Stop	Fresh WFI Water Level Low in Tank	Fill the Tank	
25.	Infeed Tunnel Overload	Machine Stop	Vial jam at tunnel infeed	Remove Vial at tunnel infeed	

COMMENTS:

PERFORMED BY

8.0 LOGICAL SECURITY VERIFICATION:

8.1 ACCESS LEVEL TEST

S.No.	USER GROUP NAME	RIGHTS & AUTHORIZATION	OBSERVATION	SIGN / DATE
1.	Administrator	All rights		
2.	Manager	Change in the process parameters, Operation, Recipe Creation, Deletion & edit, Print reports, Calibration		
3.	Supervisor	Operation, Variable parameters change, Print report, Recipe download, alarm ack.		
4.	Maintenance	Calibration, I/O list		
5.	Operator	Operation, print reports alarm acknowledge		



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

9.0 TEST RUN:

METHOD	DESCRIPTION	OBSERVATION	SIGN/DATE
Start test as per instruction	Observe sequence of operation and compare with requirement.		
Test Run successfully.			

NOTE: SEQUENCE OF OPERATION:

- ALL SENSORS ARE IN WORKING CONDITION.
- TURN TABLE MUST START.
- WATER LINE START
- AIRLINE START
- MACHINE START AS PER REQUIRE SPEED.

REMARK:

10.0 DEVIATION:

DEVIATION	REMARKS



FACTORY ACCEPTANCE TEST FOR AUTOMATIC ROTARY VIAL WASHING MACHINE

11.0 APPROVAL:

APPROVAL TABLE FOR FAT (CLIENT)			
SIGNS FOR	ROLL / NAME	DATE	SIGNATURE
REVIEW			
APPROVAL			

CONCLUSION

